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10/678,475	10/03/2003	David C. Collins	200310621-1	3351
22879	7590	12/13/2007	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			PATTERSON, MARC A	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/678,475  
Filing Date: October 03, 2003  
Appellant(s): COLLINS ET AL.

**MAILED**  
**DEC 13 2007**  
**GROUP 1700**

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Gary P. Oakeson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed September 18, 2007 appealing from the Office action mailed May 31, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ryan et al (WO 98/21626).

With regard to Claim 1, Ryan et al disclose a solid freeform fabrication system (page 4, lines 6 – 10) for producing a three dimensional object (having more than one layer; page 18, lines 15 – 25) comprising build material configured to be deposited in layers to form a three dimensional object (functionalizing material deposited so as to substantially fill a channel, therefore configured to be deposited in layers to form a three dimensional object; page 23, lines 16 – 22) and support material configured to be deposited adjacent to the build material for supporting the build material during formation of the three dimensional object (a layer of relief forming polymer, therefore configured to be deposited, providing retaining features and therefore providing the channel which is filled by the functionalizing material and also forming a feature that imparts a predetermined property of retention, which is a property other than support, within the three – dimensional object; the three dimensional object also therefore comprises embedded features; page 18, lines 15 – 25).

With regard to Claim 2, the claimed aspect of the build material disclosed by Ryan et al being deposited using an ink – jet printhead is directed to a method limitation and is therefore given little patentable weight.

With regard to Claim 3, the build material disclosed by Ryan et al is UV curable (page 19, lines 10 – 11).

With regard to Claim 4, the feature disclosed by Ryan et al is within a cavity defined by the build material (the feature is the property of retention, as stated above, and the retaining feature is filled with build material and therefore defined by the build material, as stated above).

With regard to Claim 5, the cavity disclosed by Ryan et al is a closed cavity that is completely defined by the build material (completely filled; page 22, line 29).

With regard to Claim 6, the cavity disclosed by Ryan et al is an open cavity that is partially defined by the build material and is partially open to a surface of the three dimensional object (partially filled; page 22, line 29; Figure 1e and g).

With regard to Claim 7, the feature disclosed by Ryan et al imparts color (the feature comprises a catalyst which is colored with a dye; page 15, lines 10 – 16 and page 16, lines 9 – 12).

With regard to Claim 8, the feature disclosed by Ryan et al imparts conductance (provides conductivity enhancement; page 16, line 28).

With regard to Claim 9, the build material disclosed by Ryan et al is transparent (non – UV curable, therefore transparent to UV radiation; page 18, lines 20 – 25).

With regard to Claim 10, the feature disclosed by Ryan et al comprises additional build material (the retaining feature disclosed by Ryan et al is partially or completely filled, as stated above, and therefore includes additional build material).

**(10) Response to Argument**

Appellant argues that Ryan et al fail to disclose a feature that provides a predetermined property, other than support; the channels in Ryan et al provide retaining features wherein the functionalizing material can be deposited to a limit where it substantially fills the channel, Appellant argues, but retention is the same as support as used in the context of the present application.

However, Ryan et al state that retention is provided by the relief structure on which deposition takes place. Furthermore, because the channels in Ryan et al are formed to provide retaining features wherein the functionalizing material is deposited (as shown in Figure 1e in which '28' is the functionalizing material), the bottom wall of the channel provides support, because it is an underlying substrate; the side walls of the channel provide the additional feature of retention, because they provide a barrier to side movement of the functionalizing material. retention is therefore not the same as support in Ryan et al, and the channel of Ryan et al provides both support and retention.

Appellant also argues that a material requiring retention, as in Ryan et al, is, by definition, not configured for deposition in layers.

However, Ryan et al discloses support material and build material that are layers, as stated above, and have therefore been deposited as layers onto a surface; Ryan et al therefore discloses support material and build material configured for deposition in layers.

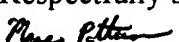
Appellant also argues that Ryan et al disclose the use of electroless deposition of functionalizing material to fill a channel with the functionalizing material, but that filling channels is not a disclosure of depositing material in layers.

However, because Ryan et al disclose deposition of functionalizing material, Ryan et al disclose functionalizing material that is configured for deposition in layers, as the deposited material will clearly have a finite thickness, length and width.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,  
  
Marc A. Patterson

Conferees:

  
Romulo Delmendo

Callie Shosho

  
Supervisory Patent Examiner